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THE DEVELOPMENT BY COMMISSIONS OF THE PRINCIPLES OF PUBLIC UTILITY VALUATION

SUMMARY

Theories of valuation in process of development by Commissions, 269. — Plant and equipment. " Reproductive " value or original cost ? 271. — Treatment of land value; peculiar position of St. Louis and New York Commissions, 274. — Pavements, 279. — Overhead charges; two methods of computing, 281. — Development expense and going values; Wisconsin method and New York method, 284. — Peculiar method in New Jersey, 287. — Conclusion, 291.

THE Supreme Court of the United States has established the principle that a public utility is entitled to a reasonable return upon the fair value of the property being used in the public service, and that the question of such reasonableness is a matter for judicial review. It has failed, however, to formulate any definite principle as to what constitutes the fair value of a property for rate making, other than to point out that certain factors must be given consideration,[1] and to say that the value which should be used as a basis for rates is the value of the property at the time it is being used.[2]

In spite of the indefiniteness in the decisions of the Supreme Court, there are being developed in the United States at the present time well defined precedents and usages in the valuation of public utilities for rate making purposes. Theories of valuation are being developed by the public service commissions, to whom the legislative bodies have delegated the regulatory power.

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[1] Smythe v. Ames, 169 U. S. 466.

[2] San Diego Land and Town Co. v. National City, 174 U. S. 739.

It is to the decisions of the commissions which regulate rates that one must look for the development of theories of valuation, in their intricate details and refinements. The purpose of this paper is to describe and compare some of the principles of valuation for rate making purposes developed by some of the leading public utility commissions in the United States.[1]

It is noteworthy that the Massachusetts Board of Gas and Electric Light Commissioners, the oldest rate making commission in the United States,[2] has contributed nothing to the theory of valuation. No specific appropriation has ever been given to the Board for the purpose of making valuations, and no organization has ever been created. Since its organization, the Board, under legislative direction, has imposed restrictions upon the issue of securities. It has been customary to base an estimate as to the amount upon which the company should be permitted a reasonable return, upon the amount of securities which have been approved by the Board or which might have been so approved. Therefore this commission has seldom made valuations, and when it has based a rate to the consumer upon the value of the property, it has failed to indicate the principle by which it arrived at a valuation. But other state and municipal public utility commissions, all of which have been established since 1907, have developed a considerable body of theories and principles of valuation.

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[1] The commissions of the various states which possess some powers of regulation of railroads only are not referred to in this paper. Only " public utility commissions " are included, that is, those possessing power over several utilities. The California and Wisconsin Railroad Commissions, herein referred to, have wide powers of regulation of various utilities.

[2] The Massachusetts Railroad Commission was established in 1869, but it cannot fix rates, its powers being only recommendatory. The Board of Gas Commissioners was organized in 1885, and in 1887 was re-organized into the Board of Gas and Electric Light Commissioners.

Plant and Equipment

The general rule is to appraise plant and equipment at its present, or " reproductive," value. This amount is arrived at in various ways, sometimes by a valuation conducted by engineers in the regular employ of the commission, sometimes by the testimony of expert witnesses familiar with the particular business and plant values therein, sometimes by a valuation conducted both by engineers for the company and for the commission. In the two cases last named, the amount often represents a compromise. Whatever the method, the amount accepted is presumed to represent proximately the depreciated value of the plant and equipment owned by the company, at the existing prices of land, labor and materials.

The St. Louis Public Service Commission, however, which has proven itself probably the most efficient and successful municipal commission, employs the original cost theory, and is its leading advocate. In its valuation of the property of the Union Electric Light and Power Company in 1911, the Commission rejected the theory of cost of reproduction, saying that " it disregards the actual conditions under which the property was produced, and sets up a purely hypothetical case." Therefore, instead, the Commission assigned to each item " its original cost in place and ready for service." Again, in its report on the valuation of the United Railways Company, in November, 1912, the St. Louis Commission says " The Commission in its valuation has relied mainly upon original cost as the theory most calculated to bring about a just result. . . . The Commission believes that in trying to determine the amount of property upon which a public service company is entitled to a reasonable return from the public

. . . the circumstances under which that property was created and placed in the public service should be taken into account. This view leads us to the use of the original cost theory where practical. . . ."[1] The method by which the original cost is computed by the Commission is to make a complete detailed inventory of the entire physical property, and then assign to each item its original cost, based upon costs as taken from the contracts in the files of the company, where possible, and when no such contracts are in existence, on estimates collected by the Commission's engineers.

While the New Hampshire Public Service Commission has not yet developed a theory of valuation, it is evident that it regards original cost as an extremely important factor. For in a recent rate case,[2] it held that it was unnecessary to make a valuation of the property, since it was clear that the original cost of the property, less depreciation, was in excess of the amount upon which the company was earning a return.

In rejecting the original cost theory, the Connecticut Public Utility Commission says: "We do not think that the original cost of construction, whatever that may have been, the price paid for the line by the company, are proper standards to determine the value of the plant and equipment for which the company is entitled to receive a fair income, but that the cost of reproduction at the present time in this particular case is a more accurate standard."[3] This reasoning seems to be accepted by the commissions of the following states, all of which base their valuations upon present or reproductive value: California, New Jersey, New

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[1] Report on the United Railways Company of St. Louis, by the St. Louis Public Service Commission, 1912, p. 12.

[2] In Brown et al. v. Exeter, Hampshire and Ames Street Railway, Report of New Hampshire Public Service Commission, 1912, p. 139.

[3] First Report, Connecticut Public Utilities Commission, 1912, p. xxxvi.

York, Maryland, and Wisconsin, and also by the Board of Public Utilities of Los Angeles.

Which of these principles is the more nearly just? In the opinion of the author, either is fair, if accompanied by an appropriate return. The rate of return, however, should depend upon which of these methods is adopted. If present value is to be taken, the result is that the company will be called upon to bear the burden of any decrease in the value of its property, and to accept a lessened return because of such depreciation. It is true that the company will also be entitled to the benefit of any appreciation. Yet the amount upon which it may earn a return in the future is indefinite and uncertain. The rate of return should therefore be sufficient to compensate the corporation for assuming this risk. In some cases it may be that the possibility of increased value, due to the ownership of land, will more than offset the possibility of a lessened value of the other property. But land does not ordinarily represent a large portion of the value of municipal utilities, operating in the public highways. Whenever a company is called upon to assume a risk as to the future value which will be placed upon its property, that risk should be given proper consideration in establishing the rate of return to be permitted. If, however, original value is to be applied, then the company will be freed from any risk as to future fluctuations in the value of its property, since the amount upon which it may expect a return is established once and for all. In such case, the rate of return permitted should properly be somewhat less. Theoretically, either method of valuation is fair, if the rate of return is regulated accordingly. Practically, however, the theory of present value is much easier to apply, since but few corporations have records by which to prove the original cost. The reproductive theory also seems much more in harmony with the decisions of the courts.

The rapid increase in the value of land in large cities has given rise to the feeling that the public should not be taxed to give a return to the companies upon increased land values, which, it is argued, have been created by the public. This question presents itself with much more force in the valuation of railways, which own their rights of way, than with the municipal utilities, which simply operate in the public highways. Nevertheless, the question of the proper treatment of land is becoming an important one in the valuation of utilities of the latter kind, since they must own more or less land in order to operate their business.

As a rule, the commissions have followed the same principle in the treatment of land which they employ in the valuation of plant, *i. e.*, valuation at its reproductive value. The Wisconsin Railroad Commission justifies itself in thus permitting the companies to derive the benefit from increases in land values by declaring that such appreciation is of a kind which is regarded as right and proper in other undertakings, and which, therefore, ought not to be denied to public service corporations.[1] With but two known exceptions, all the commissions have followed the Wisconsin practice.

The two commissions which have differentiated in their treatment of land and of physical plant are the St. Louis Commission and the New York First District Commission. Each of them employs a different method and each method is inconsistent with itself. The New York First District Commission adopts the method of including the estimated future increase in land value in the income of the companies, when establishing rates to the consumer. This is justified on the ground that

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[1] Wisconsin Railroad Commission Report, vol. iv, p. 579.

" if depreciation is a debit, appreciation is a credit." The Commission points out that it allows on physical property a depreciation rate for the future which is based upon past depreciation. This it makes a charge against income, in establishing a rate which will give a fair return to capital value. It maintains that therefore an estimate of the future appreciation in value of the property should be placed as a credit to the future estimated income. The estimate of future appreciation is to be based upon the past increase in the land values, the average rate of appreciation being secured by subtracting the original cost of the land from its present value and dividing this amount by the number of years. The rate of appreciation, however, is to be estimated in the light of the existing trend of prices. The Commission realizes that this method can give but an estimate of future appreciation, but expresses itself as being willing to grant rehearings in case its estimates do not work out. The Commission says:[1] " If property is to be taken at its depreciated value where it has depreciated, an entry must regularly be made in estimated operating expenses equal to the average annual depreciation. Conversely, if land, or any other property which generally appreciates in value, is to be taken at its appreciated value, then an entry must be made in the estimated receipts equal to the average appreciation. Unless this is done, it is obvious that the consumer will be burdened with all the estimated decreases in assets but not credited with the increases in assets." This theory was also explained at length in a later case, in which the Commission said:[2] " In determining operating expenses, an allowance was made to meet depreciation as a charge against income, for rates should be such that the consumption of capital may be offset by deductions from income. If these processes are correct, it follows that appreciation should be placed as a credit to the estimated income. It is indisputable that if depreciation is a debit, appreciation is a credit."

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[1] In re Gas & Electric Rates of the Queens Borough Gas and Electric Company, no. 2, P. S. C., 1st Dist. N. Y., June 23, 1911.

[2] Kings County Lighting Co., no. 2, P. S. C., 1st Dist. N. Y., October 20, 1911.

The essence of the scheme is to deny to the companies the advantage of increases in land values. If such increases occur, the increase is to be computed as part of income, and thereby to lessen the charges to the consumer. In all fairness and justice, the Commission would, therefore, find itself compelled to follow the reverse principle: if there are decreases in land values, charge them to operating expense, and thereby increase the charges to the consumer. This means, so far as land is concerned, that its value is in reality to be established at its value at the time of the first valuation by the Commission. From that time on, there can be no increase or decrease in its value which will materially affect the company's finances. It is the consumer who is to be affected, advantageously by increases in land value and disadvantageously by decreases in land value.

Apply this principle to a new utility plant. The result is, in effect, that the land value is permanently established at its original value (to the company). True, the land value may increase, and the company will be permitted to earn a return upon the increased valuation. But this will be offset by including in the company's earnings the amount of the increased land value, thereby lessening the amount which the consumers must pay, so that the company is no better off than if its land had not increased in value. Likewise, the land value may diminish, and the company will be permitted a return only upon the diminished valuation. But this seeming loss to the company will be offset by adding it to the operating expenses, above which the consumers must pay a reasonable return upon the company's property. Therefore, the company is no worse off because of its decreased land values. This plan is a virtual acceptance of the original value theory, if applied to a new utility, or, if applied to a company which is being evaluated for the first time, but which has been operating previously, what might be called " the existing and unchanging valuation."

The inconsistency lies in that the New York First District Commission does not apply such a principle of valuation to other property. Throughout its decisions it appraises the other property on a basis of its present value, *i. e.*, its reproductive value at the time of evalution, which permits fluctuation. In other words, it applies a theory by which, in effect, the value of land may not change, whereas the value of physical plant may.

The St. Louis Commission is also guilty of inconsistency in its treatment of land. This Commission, as already pointed out, employs the original cost principle in appraising the physical plant. Curiously enough, it rejects this principle in its valuation of land, and uses present value. In its valuation of the property of the Union Electric Light and Power Company (1911) the Commission offers no explanation whatever for its differentiation between land and physical equipment aside from the statement that " Inasmuch as the land is used in serving the public, and if not so used could be realized upon by the company at its present value, it seems only fair that this present value should be the basis for estimating the amount of return which the company is entitled to earn." But such a statement, it is obvious, would be equally true of all the other physical property of the company, which the Commission valued at its original cost. In its valuation of the property of the United Railways Company, in 1912, the Commission again made the same differentiation in the treatment of physical property and land, and offered, as a justification, the fact that " real estate, in American cities at least, is almost certain to rise in value," whereas in the case of buildings and plants " the fluctuations in price are uncertain and generally small and compensating." Therefore, argued the Commission, this rise in the value of real estate was presumably part of the inducement to make the investment, and should be recognized as a legitimate gain of the company.[1] It would seem, however, that the certainty of a great appreciation of real estate in the cities would be sufficient reason why such discrimination should not be made, if the public is to be safeguarded. The inconsistent method of the St. Louis Commission is one which is likely to prove extremely advantageous to utility companies, since the original cost of physical equipment and plant, several years after its purchase, would very often greatly exceed its present value, while the present value of land would generally be much higher than its original cost. The inconsistency of the New York First District Commission is one likely to prove disadvantageous to the companies, since the original cost of urban land, several years after its purchase, would be likely to be much less than its present value, while the present value of physical equipment would often be much less than its original cost. In other words, under the St. Louis plan the utility company has both ends of the stick; under the New York method, both ends of the stick are with the public.

This paper makes no argument for the principle of original cost or for that of present value. As already pointed out, the justice of either depends upon what theory as to a reasonable rate is to be adopted. But whichever principle is applied should be applied consistently. If land is to be valued differently than other physical property, the commission doing so must assume the burden of showing cause for such discrimination. This both the St. Louis and the New York First District Commission have failed to do.

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[1] Report on the United Railways Company of St. Louis by the St. Louis Public Service Commission, 1912, p. 23.

PAVEMENTS

The fact that pavements have been laid after the pipe-lines or conduits of utility companies are in the ground gives rise to some questions. In such cases, if the policy of present valuation is adhered to, ought not the value of the plant to be estimated upon a basis of what it would cost to reproduce it under the present conditions, with pavement in the street ? It is evident that if this method of appraisal is adopted, valuations will be greatly enhanced. This claim was first advanced by the Consolidated Gas Company of New York, in the well-known " Eighty cent gas case."[1] It has been advocated by utility corporations before several commissions within the past few years, upon the basis of the decision of the United States Supreme Court in the above case. In discussing land valuation, the Court said: " If the property which legally enters into the consideration of the question of rates has increased in value since it was acquired, the company is entitled to the benefit of such increase." But, the Court did not find it necessary in this case to pass upon the claims of the company on pavement valuation, and the commissions have apparently believed that pavements are not " property which legally enters into the question of rates."

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[1] Wilcox v. Consolidated Gas Company, 212 U. S. 19.

The Wisconsin Commission refuses to allow any additional valuation for pavement where the company has not paid for it, or incurred any expense for it,[1] altho admitting that expenditures for pavements incurred because of assessments levied by the city, and the cost of cutting pavement in order to lay mains and that of replacing such pavement, are legitimate capital charges. The New York First District Commission takes the same position, saying;[2] " If this theory (inclusion of pavement values) is correct, citizens must consider in connection with every civic improvement its effect upon rates for gas, electricity, telephone service, water, transportation, and every other service which involves the use of the subsurface of the streets. If such improvement increases the cost of reproducing the undertaking supplying the service, higher rates will thereby be justified than would be reasonable before such improvement be made. . . . The cost of reproduction method may be the only method which can be used in some instances, but to follow it to the last extremity in all cases, ignoring all other considerations, not only leads to absurd conclusions, but runs counter to judicial decisions." The New Jersey Commission also refuses to make allowance in valuation for paving " laid subsequent to the installation of the mains, and not paid for by the company."[3] The California Commission[4] refuses to allow any amount " for tearing up and relaying pavement in excess of the amount actually expended therefor." This mode of treatment is also followed by the St. Louis Commission. The author knows of no commission which has allowed an increased valuation to property because of the presence of pavement not in existence when the property was put in place and not paid for by the company. The fact that the commissions have developed a course of action on the subject of allowances for pavements, the reverse of what might naturally be expected as the logical interpretation of the decision in the Consolidated Gas case, is an encouraging indication of the tendency of the commissions to develop independent courses of action, and to decide economic questions not by a blind application of precedent but by independent reasoning. And certainly the attitude of the commissions concerning pavements is sound. To penalize citizens by permitting a higher utility rate because they have decided to tax themselves to lay pavements in their own streets would be a *reductio ad absurdum* of the present value theory.

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[1] Ripon Light and Water Company, 1910, Wisconsin Railroad Commission Reports, vol. v, p. 1.

[2] Mayhew v. Kings County Lighting Co., no. 2, P. S. C., 1st Dist. N. Y., decided October 20, 1911.

[3] In the matter of rates of Public Service Gas Co., New Jersey Public Utilities Commission, Reports for 1912, p. 31.

[4] City of Palo Alta v. Palo Alta Gas Co., decided March 12, 1913.

OVERHEAD CHARGES

Certain items, usually called overhead charges› should be added to the cost of material and labor in order to get the true valuation of the property. The Maryland Public Service Commission is the one commission which thus far has refused to make any allowance for intangible elements. Altho it has made several valuations of large properties, the most important being the Chesapeake and Potomac Telephone Company of Baltimore and the Consolidated Gas, Electric Light and Power Company of Baltimore, it has included, up to the present, in its valuations nothing but the physical or structural values. But the necessity of allowing for overhead and intangible elements is generally recognized by the other commissions.

Two methods of computing the overhead charges are in use: (1) to compute accurately the expense involved for all overhead purposes; (2) a percentage "allowance" to be added to the structural value.

The first method is that employed by the New York First District Commission. Its basis for estimating the proposed amounts of allowable overhead charges is to add to the physical valuation the following items:[1] (1) Expenses of supervising, engineering, contractor's profit, etc. (2) Expenses of promotion, organization and development of the company. (3) Expenses of interest and taxes during construction. (4) Working capital. All the above are regarded by the Commission as legitimate items to be included in the valuation. The amounts to be allowed are obtained from records as far as possible. When the records are missing, the estimates are based on general knowledge and experience, and an effort is made to arrive at a sum which will represent what was actually spent or might have been expended for these purposes. This practice is also largely followed by the St. Louis Commission, which arrives at its allowance for interest, taxes and insurance during construction, by ascertaining the actual expenditure of the companies as indicated by the companies' books, the tax records, and other available data.

The second method is represented by the practice of the Wisconsin Commission, which generally allows 12% on the reproduction cost to cover overhead charges. In the City of Ripon case[2] the Commission explained that its figure of 12% is made up as follows: 5% for engineering and superintendence; 4% for interest during construction; 3% for organization and legal expenses. The Wisconsin practice of allowing 12% was followed by the New Jersey Commission in its early cases.[1] Recently, however, the New Jersey Commission seems to have adopted a new figure for this purpose, 17.6% which includes engineering, supervision, omissions, contingencies, and interest during construction. This figure appears to be the result of estimates submitted by five different engineering firms, and is accepted as being "the fairest estimate of all these allowances."[2] The percentage method is also followed by the Los Angeles Board of Public Utilities, which includes "the usual 20% above cost, to cover engineering, supervision, interest, and contingencies during construction."[3] The California Commission in railroad valuation cases is accustomed to allow 5% for engineering and organization expenses, 1% for legal expenses, and 6% interest for one-half the period of construction. Where the Commission finds that it may have overlooked items, it allows an additional percentage for contingencies, ranging up to 5%.

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[1] Queens Borough Gas & Electric Co., no. 2, P. S. C., 1st Dist. New York. June 23, 1911.

[2] Wisconsin Railroad Commission Reports, vol. v, p. 13.

In the case of companies which have been recently organized, or which have reliable records and accounts showing past expenditures, doubtless the method of exact computation followed by the New York First District Commission and the St. Louis Commission is the more desirable. Commissions which intend to follow this practice should notify companies in their jurisdiction that all expenditures for such purposes in the future must be properly charged and recorded, if they are to be recognized in valuations. In the case of companies whose expenditures for these purposes extend far back in the past, and which have not records indicating the amounts so expended, doubtless all that can be done is to accept some percentage basis which will give an approximation to amounts properly allowable. It would seem, however, that the commissions might reasonably be expected in the future to evolve some percentage bases for this purpose which will be more nearly uniform.

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[1] Report of New Jersey Public Utilities Commission for 1911, p. 109.

[2] Matter of Rates of Public Service Gas Co., Dec. 26, 1912. Third Annual Report of the Board of Public Utilities Commissioners of New Jersey, p. 246.

[3] Los Angeles Board of Public Utilities, First Annual Report, p. 69.

DEVELOPMENT EXPENSE AND GOING VALUE

If the corporations are to receive a return which would be only sufficient to attract capital under present conditions, what is to be done regarding the deficit or dearth of adequate returns during the early years of the company's history ? Are these not a part of the investment necessary to establish the business ? It is evident that unless such losses are in some way to be made up to the companies, private capital for the industries will not continue to be forthcoming. Two methods of dealing with this problem have been adopted: (1) The Wisconsin method, which is to add early deficits and developmental losses to the valuation of the plant. Such losses, therefore, became assets, upon which the consumers are to pay a return permanently. (2) The New York First District Commission's plan, which is to permit the company to charge in later years a rate sufficient to offset the deficiencies below a fair rate in the early years.

The Wisconsin Commission says, in justification of its method;[1] "These early losses . . . represent the cost of the business in very much the same way as that in which the cost of construction represents the cost of the physical plant. One appears to be as legitimate and necessary a part of the cost of the enterprise as the other." The Commission questions whether the New York First District plan, of writing off such amounts by charging them directly to consumers in later years, is equitable, since by this method the charge is shifted from all consumers to a part of them only. It further holds that such an increase in rates is likely to retard "that development of the business which is the chief source for future reductions in rates." The Commission qualifies the application of this principle by recognizing that early deficits can be thus treated only when the conditions under which they were incurred are proper ones.[1] "When such deficits are due to abnormal conditions, or are due to bad management, defective judgment, extravagance, lack of ordinary care or foresight, unduly high capital charges, and other causes of this nature, it is manifestly clear that they should be accorded little or no consideration, in either the valuation or the rates."

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[1] Wisconsin Railroad Commission Reports, vol. iii, p. 624.

Apparently the New Jersey Commission also accepts the principle of adding early losses to the valuation of the property, for in explaining what it means by "going concern value," which it adds to the physical valuation, it says: "It may include the cost of soliciting business, cost of advertising, and also the dearth of adequate returns during the early developmental years of the company." [2] The St. Louis Commission also adopts this principle, and in its valuation of the property of the Union Electric Light and Power Company allowed $1,000,000 for this purpose, saying: "These initial losses . . . are in fact a part of the legitimate investment, and should be permitted into the earning value as a part of the investment." [3] The California Commission approves of the doctrine that early losses should be recouped to the companies in some way, saying: " That there are certain actual costs incurred in developing the business during its early stages, for which costs the utility is entitled to be reimbursed, . . . seems too obvious for argument." The Commission, however, refuses to adopt *in toto* either the Wisconsin or the New York method, announcing that in its practice " the exact method to be pursued . . . will depend upon the facts in the particular case." As a matter of fact, however, the California Commission is on record as following the Wisconsin practice.[1] In a recent decision the Commission included in the valuation of the property a considerable amount to cover the excess of operating expenses over receipts for the first year and a half after gas was served by the company, and interest for this period on a physical valuation of the property, and other expenses incurred in developing the business.[2]

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[1] Wisconsin Railroad Reports, vol. iv, p. 585.

[2] New Jersey Public Utilities Commission Reports, 1912, p. 246.

[3] Report of the St. Louis Public Service Commission on rate for light and power, 1911, p. 54.

The objection of the New York First District Commission to this plan appears to be that thereby any close relation between the valuation used for rate making and the actual physical value of the plant may be destroyed. The Commission holds that " the amount included for going concern should be limited to expenditures made prior to the time when operation begins," and that after that, the various expenses which go to make up " going concern " should be charged to operation.[3] If the policy results in losses in the early years, the company should be permitted in later years to charge rates sufficient to offset its deficiencies below a fair return in the early years. The Commission states that to include such losses in the valuation of the property, or to permit them to be capitalized " is absurd, leading to gross over-capitalization." The Maryland Commission has followed the New York practice, and in some cases where early losses actually occurred it has increased the rates in order gradually to provide for and cover such losses. But in no case has it permitted the inclusion of such losses in the plant valuation.

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[1] City of Palo Alta v. Palo Alta Gas Co., decided March 12, 1913.

[2] Exactly how much the Commission allowed to cover these items it does not state, but from the decision it appears that it was about $8,000.

[3] Queens Borough Gas & Electric Company case, decided June 23, 1911, no. 2, P. S. C., 1st Dist. New York.

The Wisconsin practice seems to be the more rational. If the early deficits incurred in order to build up the business represent the cost of the property in the same sense that the investments in material equipment do, then the natural procedure is to add the amount of such deficits to the investment in equipment, the whole to represent the total investment upon which the company is entitled to a return. It is true that to do so means that a return upon these early deficits will be saddled permanently upon the consumers. But if such deficits (assuming them to represent wise expenditure) are a part of the legitimate and necessary investment in the property, this is certainly proper. The New York method brings a discrimination against the present consumers as compared with future ones. Why should the consumers of today be burdened with a higher charge for the purpose of recouping to the company one part of its investment (early losses), any more than they should be burdened with a higher rate to recoup the value of its land or buildings, in order that the consumers of tomorrow may not be required to pay a return upon such part of the investment ?

Both the Wisconsin and the New York First District plans contemplate that only the deficits incurred in developing the business shall be made up in some way to the company. An entirely different method of reasoning is applied by the New Jersey Commission, which holds not only that early deficits should be added to physical value, but that expenditures to get patronage and to develop the business should be included in the valuation, whether or no such expenditures have ever been recouped to the company. This theory is announced in its boldest form in the Public Service Gas case[1] decided Dec. 26, 1912. In this case the Commission announced that it would add about thirty per cent to structural value for " going value," such value to be " largely represented by the cost of developing the business, as distinct from the cost of securing the physical structure." The Commission held, " we see no escape from the necessity of recognizing the intangible property designated as ' going concern value,' as well as actual physical structures similarly obtained, as constituting part of the present lawful possessions of a public utility, even tho both the tangible and the intangible values were built up in the past, out of rates exacted from the consumers. . . . If these high rates in the past have been employed by the company to acquire intangible property in the shape of extensive patronage, that expectation of patronage is theirs, and on its fair value the company is entitled to a return. The ' going concern value ' will then be largely represented by the cost of developing the business as distinct from the cost of securing the physical structure." The principle laid down is that this cost of " developing the business " should be added to the value of the physical property, even tho expenditures for this purpose never produced a deficit, or a lack of adequate returns; in fact, quite regardless of what the returns of the company in the past may have been. " The going concern value may include the cost of soliciting business, cost of advertising, cost of inducing consumers to take service, cost of exhibiting appliances, cost of occasional free installations, etc." In other words, all such expenditures in the past are to be charged to capital account, even tho these expenditures did not intrench upon a fair return. And this is because, " a plant with a business attached has a value greater than the value of the mere plant without the business attached."

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[1] Report of the New Jersey Board of Public Utility Commissioners for 1912, p. 246.

This scheme represents, in the purest form, the capitalization, not simply of losses or deficiencies below a fair return, but of expenses. If all expenditures incurred by a company in order to secure and establish its business are to be added to capital value, then practically all expenses must be so treated, for practically every expense is incurred either to get or to hold business. All expenses of doing business are surely expenses incurred in order to hold the patronage, and are therefore responsible for the fact that the plant has a " business attached." The amounts expended for fuel with which to manufacture gas, the salaries of officials, the wages of employees, the cost of materials used, and all other legitimate operating expenses have been incurred either to develop or to hold patronage, and therefore, to " establish a plant with a business attached." For it is evident that if these expenditures were not made, there could not long be any patronage. It is obvious that to charge all operating expenses to capital would be unthinkable. But no differentiation can be made between the cost of getting patronage and the cost of serving the patronage, since without the service the patronage would not continue. Both are, properly, operating expenses.

The error of the New Jersey Commission is due to their unqualified acceptance of the premise " a plant with a business attached has a value greater than the value of the mere plant without the business attached." This is always true in private business, but in the regulation of public utilities it may or may not be true. If a value in addition to physical value is to be allowed merely because there is a patronage established, it is evident that such value cannot depend upon the rate which the company is permitted to charge, for this in turn must depend upon the valuation allowed. The New Jersey Commission has endeavored to avoid this vicious circle by computing the going value upon the basis of what it actually cost the company to build up its business. But it is evident that if this is to be the basis for going value, then the cost added must be not the gross cost but the net loss, *i. e.*, the deficits or the lack of adequate returns due to developmental expenses. For it is only this amount which measures the *bona fide* investment, the sacrifice made by the owners of the property, in order to build up its business. To add the total expenditures made to develop the business regardless of the earnings which have been made means that all other operating costs incurred in the past, whether reimbursed to the company or not, should likewise be added to plant value: a preposterous proposal.

In rate cases in which the question of development expenses in the past arises, the fair method would be to ascertain whether, if all the amounts claimed to have been so incurred had been charged against operating expenses, the rate of return would have been less than a reasonable one. If not, surely these amounts should not also be added to capital value. And developmental expenses to be incurred in the future should certainly be charged to operating expenses. However, if income is not sufficient to permit these items to be so charged without encroaching upon a fair rate of return, they should be charged to capital value only until earnings become sufficient to permit the other arrangement.

It is evident from the various methods of valuation herein described that at the present time there are few principles of valuation which are uniformly applied by all the commissions. While each commission regularly applies its own principles, the principles of the various commissions are in conflict. Yet the utility companies, since the movement for the establishment of state utility commissions which really began in 1907, have shown little desire to appeal from the decisions of the commissions to the courts. None the less, it is probable that the Supreme Court will, in the not far distant future, be called upon to definitely decide upon some of these conflicting theories of valuation.

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